

Public Behavior Awareness of Eradicating Mosquito Larvae in Kelambir Village, Pantai Labu District

Sahrial[1], Nabila Husna[2], Nabilla Yurisna Siregar[2], Rizka Soraya Hasibuan[2], Ridha Panalia Siregar[2], Muhammad Subhan[2], Muharrammah Isnaini[2], Mira Indah Pratiwi Limbong[2], Mira Ulfa Yani Harahap[2], Romi Zahir Manik[2],

[1] Dinas Kesehatan Kabupaten Deli Serdang, Indonesia
[2] Fakutas Kesehatan Masyarakat Universitas Islam Negeri Sumatera Utara, Medan.

Email corespondensi : ridhapanaliasiregar03@gmail.com

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Abstract

The existence of Aedes aegypti mosquito larvae that cause dengue fever is caused by the existence of water reservoirs which play a very important role in the density of the Aedes aegypti mosquito vector because the more adequate water reservoirs, the more places Aedes aegypti mosquito larvae can breed. This study aims to discover how the community's knowledge, attitudes, and actions are related to the presence of Aedes aegypti mosquito larvae in Kelambir Village, Pantai Labu District. This research method is a qualitative descriptive study with a population of hamlet I and three kelambir villages. The sample number was 50 respondents with a simple random sampling technique. The results of the study revealed that out of 50 respondents, 32 respondents (64%) had good knowledge, 18 respondents (36) had less knowledge, 29 respondents (58%) had a good attitude, and 21 respondents (42%) had a poor attitude. Twenty-three respondents (46%) lack practice, 27 respondents (54%) have good practice; it is concluded that good knowledge and mosquito larvae are 32 respondents (64%) have a good attitude, and 29 respondents (58%) and good actions. There were larvae as many as 27 respondents (54%).Iit is expected to increase awareness further as well as good and correct actions in overcoming the problem of mosquito larvae which is the cause of the onset of DHF incidence in the community, such as implementing 3M and implementing a clean and healthy lifestyle.Local Government to utilize the results of this study in making a policy for mosquito larvae eradication efforts that are more in-depth and can provide solutions to solving the problem of dengue cases and dengue fever mosquito larvae breeding. It is expected to increase the comparison's awareness and validity to clarify further the research conducted

Keyword: Aedes Aegypti, Attitudes, Knowledge, Mosquito Larvae, Practices

INTRODUCTION

Dengue fever is caused by the Dengue virus, which is spread by Aedes Aegypti and Aedes Albocpictus mosquito bites(Nendissa, 2019). Dengue is endemic in Indonesia, where it has spread across the nation (Safitri, 2016). DHF (Dengue Hemorrhagic Fever) is one of the illnesses that continue to pose a threat to global health. In addition to being a cause of mortality, DHF directly or indirectly causes economic and social difficulties that impair the lives of patients and their families and may even have a cumulative effect that increases the burden on families and sufferers (Arfan & Taufik, 2017).

In 1968, a case of DHF was discovered in Surabaya; since then, DHF-related public health issues in Indonesian society have emerged (Utami RSB, 2015). *Dengue fever* is an infectious illness caused by the Dengue virus and spread by the Aedes mosquito bite (Sulistyorini et al., 2016). Several mosquitoes transmit DHF, but until now, the main cause of DHF is Aedes aegypti (Al Azizah & Agustina, 2017). The *Aedes Aegypti* mosquito is a vector of dengue transmission that breeds in water reservoirs such as puddles of water collected around the house or in public places (Yenni, 2019).

Mosquito nest eradication is a task that may be performed by anybody, such as by removing the eggs, larvae, and pupae of mosquitoes that spread dengue hemorrhagic fever from their nesting grounds (Anggraini, 2016). Mosquito nest eradication is a healthy lifestyle choice since it contributes to disease prevention by disrupting the dengue transmission cycle. The whole community should simultaneously and continually install mosquito nest eradication (Ardianti et al., 2018); (Sunarya, 2019). Not only the community but also other cross-sectors are participating as program supporters (Safitri, 2016).

The mosquito nest eradication habit is a healthy living behavior that attempts to reduce mosquito breeding areas and prevent interaction with Aedes, a carrier of dengue fever (Yuniati et al., 2022). If this action is executed successfully, the DHF transmission chain may be halted, resulting in the desired reduction of DHF instances (Rahel, Violin, 2017).

Behavioral factors that have knowledge, attitude, and action domains also affect the emergence of DHF disease. The results of research support this by Fakhriadi (2018), which states that common knowledge has a risk of DHF 7.944 times greater than respondents who have high knowledge about mosquito nest eradication low mosquito nest eradication attitudes have a risk of DHF 7.875 times compared to respondents who have a high attitude towards mosquito nest eradication . Low action has a risk of DHF 14.636 times compared to respondents who have high action towards mosquito nest eradication (Firdatullah et al., 2020). Based on the description above, the purpose of this study is to determine the awareness of community behavior toward eradicating mosquito larvae in Kelambir Village, Pantai Labu Subdistrict

METHODS

This research is descriptive with a cross-sectional design. This study was conducted on 50 people in Kelambir Village, Pantai Labu Sub-district. This research was conducted in January–July 2022.

The population in this study were the people of hamlets I and 3 of Kelambir Village. The sample size was 50 respondents, with sampling techniques carried out by simple random sampling. In the study, primary data was collected through interviews with community members. Secondary data collection was carried out by collecting data from the Pantai Labu District and the Deli Serdang Regency Health Office.

This study used an open questionnaire research instrument to see the age of respondents, gender of respondents, education of respondents, occupation of respondents, provision of information, provision of fogging, knowledge about dengue fever prevention, attitudes about dengue fever prevention, and actions about dengue fever prevention. The frequency distribution and percentage of the study's results were calculated using univariate data analysis.

RESULTS

Tabel 1 Age of Respondents in Kelambir Village, Pantai Labu District

No.	Age	N	%
1.	18-45	32	64.0
2.	46-65	16	32.0
3.	<66	2	4.0
	Total	**50**	**100.0**

Table 1 shows that of the 50 respondents, most respondents were in the group with an age range of 18-45 years with a *frequency of* 32 respondents 64% and the least were in the group with an age range of <66 years with a *frequency of* 2 respondents 4%.

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Tabel 2 Gender of Respondents in Kelambir Village, Pantai Labu District

No.	Gender	N	%
1.	Male	21	42.0
2.	Female	29	58.0
	Total	**50**	**100.0**

Table 2 shows that of the 50 respondents, most respondents were female, with a *frequency of* 29 respondents 58% and the least gender was male, with a *frequency of* 21 respondents 42%.

Tabel 3 Education Level of Respondents in Kelambir Village, Pantai Labu District

No	Education Level	N	%
1.	Primary School	16	32.0
2.	Junior High School	11	22.0
3.	Senior High School	17	34.0
4.	Bachelor	5	10.0
5.	Not School	1	2.0
	Total	**50**	**100.0**

It has been explained that of the 50 respondents, the last level of education most taken by respondents was the high school level of education as many as 17 respondents 34% and the least were respondents who did not attend school as many as one respondents 2%.

Tabel 4 Occupation of Respondents in Kelambir Village, Pantai Labu District

No	Jobs	N	%
1.	Not Working	19	38.0
2.	Teacher	2	4.0
3.	Farmers	15	30.0
4.	Fisherman	1	2.0
5.	Self-employed	6	12.0
6.	Looking for aJob	4	8.0
7.	Building Worker	1	2.0
8.	Online Ojek	1	2.0
9.	Tire Workshop	1	2.0
	Total	**50**	**100.0**

It has been explained that of the 50 respondents, the highest level of respondent employment is Housewives (IRT) with a *frequency of* 18 respondents 36% and there are five

different jobs with a *frequency of* 1 respondent 2%, namely Not working, Fishermen, Construction Workers, Online Ojek and Tire Repair.

Tabel 5 Sources of Information Obtained in Kelambir Village, Pantai Labu District

No	Source of Information	N	%
1.	Health Officer	47	94.0
2.	Village Party	3	6.0
	Total	**50**	**100.0**

Table 5 shows the results of 50 respondents, 47 respondents, with a percentage of 94%, who received information about mosquito larvae and DHF from Health Officers, and three respondents, with a percentage of 6%, who received information from the Village.

Tabel 6 Reception of flick check visits in Kelambir Village, Pantai Labu District

No	Visit	N	%
1.	1x	47	94.0
2.	2x	2	4.0
3.	3x	1	2.0
	Total	**50**	**100.0**

Table 6 showed how many mosquito larvae inspection visits by health workers and by the village; from the exposure of 50 respondents, 47 respondents, with a percentage of 94%, have been visited once, two respondents, with a percentage of 4%, have been visited twice and one respondent with a percentage of 2% has been visited three times by mosquito larvae inspection visits by health workers.

Tabel 7 Many Fogging in Kelambir Village, Pantai Labu District

No	Fogging	N	%
1.	1x	45	90.0
2.	2x	5	10.0
	Total	**50**	**100.0**

Table 7 shows that out of 50 respondents, the highest number of fogging respondents is 45, with a percentage of 90% with much fogging one time and five respondents with a percentage of 10% with much fogging two times.

Tabel 8 Knowledge Respondents in Kelambir Village, Pantai Labu District

No	Knowledge	N	%
1.	Less	18	36.0
2.	Good	32	64.0
	Total	**50**	**100.0**

Table 8 shows the results of 50 respondents, 32 respondents with a percentage of 64% have good knowledge and as many as 18 respondents with a percentage of 36% lack of knowledge in knowledge about mosquito breeding.

Tabel 9 Attitude Respondents in Kelambir Village, Pantai Labu District

No	Attitude	N	%
1.	Less	21	42.0
2.	Good	29	58.0
	Total	**50**	**100.0**

Table 9 shows the results of 50 respondents; there is a respondent's attitude with a *frequency of* 29 respondents with a percentage of 58% having a good attitude and 21 respondents with a percentage of 42% having a poor attitude in mosquito larvae breeding.

Tabel 10Practices Respondents in Kelambir Village, Pantai Labu District

No	Practices	N	%
1.	Less	23	46.0
2.	Good	27	54.0
	Total	**50**	**100.0**

Table 10 describes the results of 50 respondents; there are respondents' actions with a *frequency of* 27 respondents, with 54% having good practical actions and 23 respondents with a percentage of 46% having less practical actions in mosquito larvae breeding.

DISCUSS

DHF is a disease transmitted by the Aedes Aegypti mosquito and the female Aedes albopictus mosquito that transmits the Dengue virus (Listyorini, 2016). Ae. Aegypti

mosquitoes can develop in all types of water, including contaminated water (Siregar, 2021); (Monintja, 2015). According to laboratory tests, Ae. aegypti eggs can hatch in all types of water, but development from eggs to adult mosquitoes is slower in sewer water than in well water (Yahya, 2017).

Dengue fever is an infectious illness with symptoms including fever, rashes, and bleeding. DHF arises owing to environmental and behavioral difficulties. Research-based on age indicates that most samples, or 32 individuals, are between 18 and 45. According to Nasution, (2019) , age will raise the amount of knowledge. Consequently, a person's increased knowledge will likewise alter the activity taken to eradicate mosquito nests.

As many as 17 respondents possessed a high school diploma or less, as shown by the study's findings about their degree of education. According to Wawan, the more the level of education, the simpler it will be to acquire and assimilate information or messages. The message may consist of health advice addressing the elimination of mosquito nests (Susetya & Dewi, 2018); (Waruwu, 2016)

The research findings indicate that health professionals are the primary source of health information for the population. Health professionals are crucial in providing the population with health-related knowledge and information, which may be achieved by community education about eliminating mosquito nests(Wahidah, 2016); (Lubis, 2021).

The majority of fogging was performed once per 45 respondents, according to the findings of the research on fogging. Fogging is an efficient method for eliminating mosquitoes. Toxic fumes may injure and contaminate the environment if the process is repeated; hence it is not advised. Fogging does not remove mosquitoes if there are still mosquito larvae in reservoirs or water reservoirs, which will allow mosquito larvae to continue to develop into mosquitoes capable of reinfecting the population with Dengue Fever (Rismawati & Nurmala, 2017); (Muthmainah Handayani, 2019).

The results of the univariate test indicate that the knowledge, behavior, and attitude of the inhabitants of Kelambir village are classed as excellent. Where persons with high knowledge will often have positive attitudes and conduct, this is consistent with past research on knowledge, attitudes, and behavior about the destruction of mosquito nests in South Denpasar District, Denpasar City, Bali, in order to prevent dengue illness.

The findings of this research are consistent with the hypothesis that knowledge is connected to a person's conduct, in that if a person is knowledgeable about environmental health, he would want to safeguard his surroundings to prevent health issues caused by the

environment. Attitude is also a perception of a person's behaviors or behavior in reacting to health concerns and deciding what steps will be taken to eradicate mosquito nests. Therefore, the better one's mindset, the better one's conduct (Gafur & Jastam, 2015).

The cause of DHF is poor environmental sanitation in the area. Therefore, there is a need for measures that can be taken for mosquito nest eradication and to prevent the occurrence of DHF (Hastuti NM, 2017). Mosquito nest eradication is a preventative method for dengue disease. To destroy mosquito nests, emptying water tanks, to seal containers that can store water firmly, and burying reservoirs are among the many measures used (Rismawati & Nurmala, 2017); (Manalu HSP, 2016).

Checking for larvae in water, working together to clean the environment, maintaining larval-eating fish, avoiding piling clothing in areas where mosquitoes might build nests, and inspecting areas that store water is all positive aspects. Therefore, health professionals' involvement in advising on how to avoid dengue epidemics is crucial (Buntar, 2020); (Saragih et al., 2019). Posters, animated health videos, health-themed photographs, and other visual aids may raise the community's awareness and understanding of health issues efficiently.

Dengue hemorrhagic fever mosquito disease can be prevented through the "draining, closing, and burying" program. This is a simple and free method, but the North Binjai District's Cengkeh Turi Village still needs to be able to use it (Siregar, 2021). The lack of implementation of the "draining, closing, and burying" program and the community's understanding and treatment of the dangers of dengue hemorrhagic fever are highly correlated. The community will be encouraged to learn about dengue and the prevention of dengue hemorrhagic fever (DHF) due to people's motivation for healthy lifestyles.

CONCLUSIONS

The deterioration of the neighborhood's vigilance system is one of the variables affecting the efficiency of preventing mosquito larval development, which influences the incidence of dengue fever in the Kelambir Village community. All respondents who participated in this study have received information on dengue prevention and mosquito larvae. The highest source of information by respondents was 94%, with 47 respondents receiving information on dengue and mosquito larvae prevention through Health Officers. At

the same time, 6%, with a total of 3 respondents, received information on DHF and mosquito larvae prevention through Village Officials.

It is expected to increase the comparison's awareness and validity to clarify further the research conducted. For the community, it is expected to increase awareness further as well as good and correct actions in overcoming the problem of mosquito larvae which is the cause of the onset of DHF incidence in the community, such as implementing 3M and implementing a clean and healthy lifestyle. For the Local Government to utilize the results of this study in making a policy for mosquito larvae eradication efforts that are more in-depth and can provide solutions to solving the problem of dengue cases and dengue fever mosquito larvae breeding

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